

**PROPOSED AMENDMENTS 2003 INTERNATIONAL PLUMBING CODE
TEMPE 9/23/05**

That certain document known as the International Plumbing Code, which has been published as a Code in book form by the International Code Council and entitled International Plumbing Code, 2003 Edition, together with the following appendices thereto:

- Appendix B – Rates of Rainfall for Various Cities
- Appendix C – Gray Water Recycling Systems
- Appendix E – Sizing of Water Piping System
- Appendix F – Structural Safety

is hereby referred to, adopted, and made a part hereof as if fully set forth in this Section, with the following changes in and amendments to said Code:

201.4 Terms not defined. Where terms are not defined through the methods authorized by this chapter, such terms shall have ordinarily accepted meanings such as the context implies. Webster's Third New International Dictionary of the English Language, Unabridged, shall be considered as providing ordinarily accepted meanings.

SECTION 202

APPROVED. Approved by the code official, the authorized representative or other authority having jurisdiction.

312.1.1 Test gauges. Gauges used for testing shall be as follows:

1. Tests requiring a pressure of 10 psi (69 kPa) or less shall utilize a testing gauge having increments of 0.10 psi (0.69 kPa) or less.
2. Tests requiring a pressure of 10 psi (69 kPa) but less than or equal to 100 psi (690 kPa) shall utilize a testing gauge having increments of 1 psi (7 kPa) or less.
3. Tests requiring a pressure of greater than 100 psi (690 kPa) shall utilize a testing gauge having increments of 2 psi (14 kPa) or less.

Pressure tests required by this code, which are performed utilizing dial gauges, shall be limited to a gauge having a maximum gauge rating not exceeding twice the applied test pressure.

312.5 Water supply system test. Upon completion of a section or the entire water supply system, the system or portion completed, shall be tested and proven tight under a water pressure not less than the working pressure of the system; or, for piping systems other than plastic, by an air test of not less than 50 psi (344 kPa). This pressure shall be held for a test period of at least 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The require tests shall be performed in accordance with this section and Section 107.

313 Deleted.

504.6.1 Discharge. The relief valve shall discharge full size to a safe place of disposal such as ~~the floor~~, outside the building or an indirect waste receptor. The discharge pipe shall not have any trapped sections, ~~and shall have a visible air gap or air-gap fitting located in the same room as the water heater shall be installed to drain by gravity flow and shall terminate atmospherically not less than 6 inches (152 mm) nor more than 24 inches (610 mm) above the floor or finish grade pointing downward.~~ The outlet end of the discharge pipe shall not be threaded and such discharge pipe shall not have a valve or tee installed. ~~Such pipe shall be installed in a manner that does not cause personal injury to occupants in the immediate area or structural damage to the building.~~

504.7.1 Pan size and drain. The pan shall not be less than 1.5 inches (38 mm) deep and shall be of sufficient size and shape to receive all dripping or condensate from the tank or water heater. The pan shall be drained by an indirect waste pipe having a minimum diameter of $\frac{3}{4}$ inch (19 mm) installed with a uniform alignment at a uniform slope in the direction of discharge of not less than one-eighth unit vertical in 12 units' horizontal (one-percent slope).

607.2 Hot water supply temperature maintenance. Where the developed length of hot water piping from the source of hot water supply to the farthest fixture exceeds 100 feet (30,480mm), the hot water supply system may ~~shall~~ be provided with a method of maintaining the temperature in accordance with the *International Energy Conservation Code*.

607.2.1 Piping insulation. Circulating hot water system piping ~~may~~ shall be insulated in accordance with the *International Energy Conservation Code*.

TABLE 608.1
APPLICATION OF BACKFLOW PREVENTERS

DEVICE	DEGREE OF HAZARD ^a	APPLICATION ^b	APPLICABLE STANDARDS
Air gap	High or low hazard	Backsiphonage or backpressure	ASME A112.1.2
Air gap fittings for use with plumbing fixtures, appliances and appurtenances	High or low hazard	Backsiphonage or backpressure	ASME A112.1.3
Antisiphon-type fill valves for gravity water closet flush tanks	High Hazard	Backsiphonage only	ASSE1002, CSA-B125
Barometric loop	High or low Hazard	Backsiphonage only	(See Section 608.13.4)
Reduced pressure principle backflow preventer	High or low hazard	Backpressure or backsiphonage Sizes 3/8" – 16"	ASSE 1013, AWWA C511, CAN/CSA B64.4
Double check backflow prevention assembly	Low hazard	Backpressure or backsiphonage Sizes 3/8" – 16"	ASSE 1015, AWWA C510
Double-check-valve-type backflow preventer	Low hazard	Backpressure or backsiphonage Sizes 1/4" – 1"	ASSE 1024
Backflow preventer with intermediate atmospheric vents	Low hazard	Backpressure or backsiphonage Sizes 1/4" – 3/4"	ASSE 1012, CAN/CSA-B64.3
Backflow preventer for carbonated beverage machines	Low Hazard	Backpressure or backsiphonage Sizes 1/4" – 3/8"	ASSE 1022
Pipe-applied atmospheric-type vacuum breaker	High or low hazard	Backsiphonage only Sizes 1/4" – 4"	ASSE 1001, CAN/CSA-B64.1.1
Pressure vacuum breaker assembly	High or low hazard	Backsiphonage only Sizes 1/2" – 2"	ASSE 1020
Hose-connection vacuum breaker	High or low Hazard	Low head backpressure or backsiphonage Sizes 1/2", 3/4", 1"	ASSE 1011, CAN/CSA-B64.2
Vacuum breaker wall hydrants, frost-resistant, automatic draining type	High or low hazard	Low head backpressure or backsiphonage Sizes 3/4", 1"	ASSE 1019, CAN/CSA-B64.2.2
Laboratory faucet backflow preventer	High or low hazard	Low head backpressure and backsiphonage	ASSE 1035, CSA B64.7
Hose connection backflow preventer	High or low hazard	Low head backpressure, rated working pressure backpressure or backsiphonage Sizes 1/2" – 1"	ASSE 1052
Spillproof vacuum breaker	High or low Hazard	Backsiphonage only Sizes 1/4" – 2"	ASSE 1056

For SI: 1 inch = 25.4 mm.

- a. Low hazard—See Pollution (Section 202).
- High hazard—See Contamination (Section 202).
- b. See Backpressure (Section 202).
- See Backpressure, low head (Section 202).
- See Backsiphonage (Section 202).

608.16.4 Connections to automatic fire sprinkler systems and standpipe systems.

The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow by a double check valve assembly or a reduced pressure principle backflow preventer.

Exceptions:

1. Where systems are installed as a portion of the water distribution system in accordance with the requirements of this code and are not provided with a fire department connection, isolation of the water supply system shall not be required.
2. Isolation of the water distribution system is not required for deluge, preaction or dry pipe systems.

701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private disposal system in accordance with the International Private Sewage Disposal Code Maricopa County Health Department Environmental Service Division. The public sewer may be considered as not being available only when so determined by the Maricopa County Health Department Environmental Service Division.

803.2 Neutralizing device required for corrosive wastes. Corrosive liquids, spent acids or other harmful chemicals that destroy or injure a drain, sewer, soil or waste pipe or create noxious or toxic fumes or interfere with sewage treatment processes shall not be discharged into the plumbing system without being thoroughly diluted, neutralized or treated by passing through an approved dilution or neutralizing device. Such devices shall be automatically provided with sufficient supply of diluting water or neutralizing medium so as to make the contents noninjurious before discharge into the drainage system. The nature of the corrosive or harmful waste and the method of its treatment or dilution shall be approved prior to installation. Detailed plans and specifications of the pretreatment facilities may be required by the Director of Public Works or designate.

904.1 Roof extension. All open vent pipes that extend through a roof shall be terminated at least 6 inches (152 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least 7 feet (2134 mm) above the roof.

1003.1 Where required. Interceptors and separators shall be provided, when in the judgment of the Director of Public Works or designate, to prevent the discharge of oil, grease, sand and other substances harmful or hazardous to the building drainage system, the public sewer or sewage treatment plant or processes.

1003.2 Approval. The size, type and location of each interceptor and of each separator shall be approved by the Director of Public Works or designate and shall be designed and installed in accordance with the manufacturer's instructions and the requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

1106.1 General. The size of vertical conductors and leaders, building storm drains, building storm sewers, and any horizontal branches of such drains or sewers shall be based on an hourly rainfall rate of 3" per hour, ~~the 100 year hourly rainfall rate indicated in Figure 1106.1 or on other rainfall rates determined from local weather data~~.

1107.2 Separate systems required. Secondary roof drain systems shall have the end point of discharge separate from the primary system. Discharge shall be above grade, in a location which would normally be observed by the building occupants or maintenance personnel.

Exception: Secondary drains may be connected to the primary drain system at a point not less than 10' (3048 mm) below the secondary drain inlet height, when the primary system is designed for a 6" per hour rainfall.

1107.3 Sizing of secondary drains. Where roof drains are required, secondary drains having the same size as the roof drains shall be installed with the inlet flow line located 2 inches (51 mm) above the low point of the roof, or overflow scuppers having three times the size of the roof drains may be installed in the adjacent parapet walls. Scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by 1101.7, and the requirements of the International Building Code, Sections 1608.3.4 and 1608.3.5. Scuppers shall not have an opening dimension of less than 4 inches (102 mm). The flow through the primary system shall not be considered when sizing the secondary roof drain system.

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